

Mark Horne Project Manager Marketing Business Unit **Chevron Environmental Management Company** 6001 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 842-0973 markhorne@chevron.com

**RECEIVED** 

By Alameda County Environmental Health 3:30 pm, Nov 03, 2016

Alameda County Health Care Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Former Texaco Service Station No. 359766

2700 23<sup>rd</sup> Avenue Oakland, CA

I have reviewed the attached report titled Third Quarter 2016 Groundwater Monitoring and Sampling Report

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by GHD Services Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Mark Horne Project Manager

my Ellan

Attachment: Third Quarter 2016 Groundwater Monitoring and Sampling Report



November 2, 2016 Reference No. 062086

Ms. Karel Detterman Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: Third Quarter 2016 Groundwater Monitoring and Sampling Report Former Texaco Service Station 359766
2700 23<sup>rd</sup> Avenue
Oakland, California
ACEH Case RO0003098

Dear Ms. Detterman:

GHD is submitting this *Third Quarter 2016 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by Blaine Tech Services (Blaine Tech) of San Jose, California and their *Third Quarter 2016 Monitoring Report* is included as Attachment A. Current and historical groundwater monitoring and sampling data are summarized in Table 1 and presented on Figure 2. Eurofins Lancaster Laboratory Environmental, LLCs' of Lancaster, Pennsylvania, *Analytical Results* report is included as Attachment B.





Please contact Kiersten Hoey (510) 420 3347 if you have any questions or require additional information.

Cordially,

GHD

Kiersten Hoey

Brandon S. Wilken, PG 7564

No. 7564

KH/tl/11

Encl.

Figure 1 Vicinity Map

Figure 2 Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 Groundwater Monitoring and Sampling Data

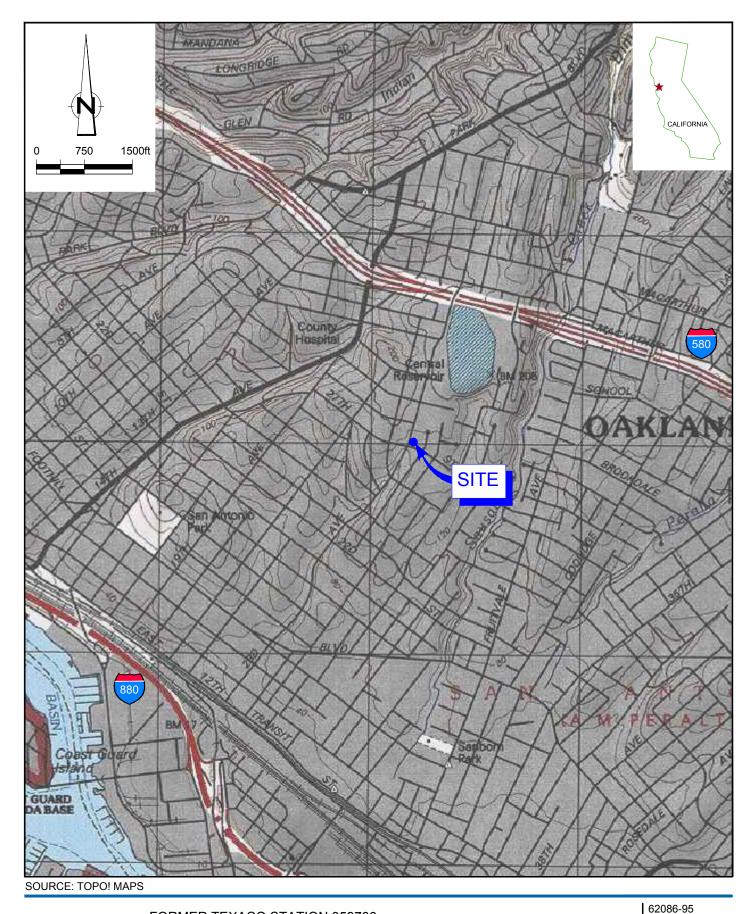
Attachment A Monitoring Data Package
Attachment B Laboratory Analytical Report

cc: Mr. Mark Horne, Chevron (electronic copy)

Pedro and Maria Pulildo, Property Owner

062086-RPT11-3Q16 2

# **Figures**

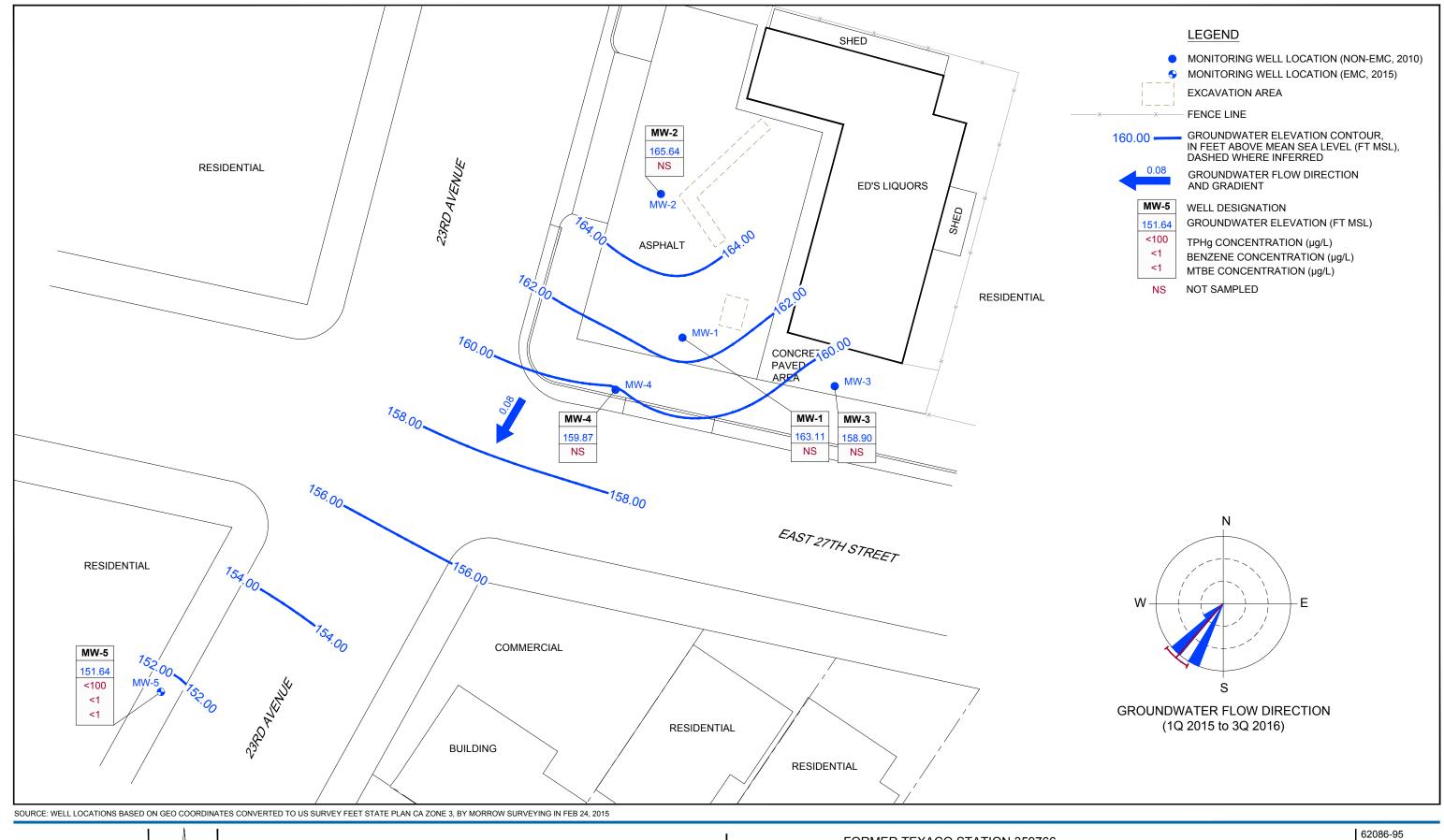




FORMER TEXACO STATION 359766 2700 23rd AVENUE OAKLAND, CALIFORNIA Oct 28, 2016

**VICINITY MAP** 

FIGURE 1



0 10 20ft

GHD

FORMER TEXACO STATION 359766 2700 23rd AVENUE OAKLAND, CALIFORNIA

Nov 1, 2016

GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP - SEPTEMBER 8, 2016

## **Table**

Table 1

Groundwater Monitoring and Sampling Data
Former Texaco Service Station 359766 (Ed's Liquors)
2700 23rd Avenue
Oakland, California

					1.07	DDOCADDO	MC	1							/OCS					
			1	1	HY	DROCARBO	CNIC		1	1	1		1	\ 	1005		1	1	1	1
Location	Date	TOCª	DTW	GWE	трн-мо	TPH-DRO	трн-GRO	В	т	E	x	MTBE by SW8260	Naphthalene	ТВА	DIPE	ЕТВЕ	TAME	1,2-DCA	EDB	ADDITIONAL
	Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
MW-1	11/18/2010 <sup>1</sup>	168.84	7.93	160.91	<250	<50						1.3	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	02/14/2012 <sup>1</sup>	168.84	7.31	161.53		<50	<50	<0.50	<0.50	<0.50	<0.50	1.2								
	03/13/2015	168.90	12.11	156.79																
	06/19/2015	168.90	11.31	157.59																
	09/29/2015	168.90	10.83	158.07																
	12/22/2015	168.90	6.44	162.46																
	03/28/2016	168.90	6.08	162.82																
	06/19/2016	168.90	5.41	163.49																
	09/08/2016	168.90	5.79	163.11			-								-					
MW-2	44/40/00401	170.33	7.52	162.81	<250	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	ND
IVIVV-Z	11/18/2010 <sup>1</sup> 02/14/2012 <sup>1</sup>	170.33	6.37	163.96		<50 <50	<50 <50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<2.0	<0.5		<0.5	<0.5	<0.5	ND 
	03/13/2015	170.41	8.10	162.31																
	06/19/2015															-				
		170.41	6.92	163.49		-	-	-	-	-	-		-	-			-		-	-
	09/29/2015	170.41	7.95	162.46																_
	12/22/2015	170.41	4.49	165.92		-	-	-	-		-			-	-	-	-	-		-
	03/28/2016	170.41	3.83	166.58																
	06/19/2016	170.41	3.71	166.70			_	_	_				_		_				_	
	09/08/2016	170.41	4.77	165.64																
MW-3	11/18/2010 <sup>1</sup>	168.67	5.14	161.15	<250	2,100	3,700	<0.5	<0.5	<0.5	0.84	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	3.0 <sup>g</sup> 0.68 <sup>d</sup> 2.0 <sup>e</sup> 2.2 <sup>h</sup> 6.6 <sup>f</sup>
	02/14/2012 <sup>1</sup>	168.67	4.98	163.69		<1,500	3,400	<0.50	<0.50	1.2	<0.50	<0.50								
	03/13/2015	168.71	6.50	162.21																
	06/19/2015	168.71	5.93	162.78																
	09/29/2015	168.71	6.98	161.73																
	12/22/2015	168.71	8.01	160.70																
	03/28/2016	168.71	7.04	161.67																
	06/19/2016	168.71	7.14	161.57																
	09/08/2016	168.71	9.81	158.90			-						-						-	

Table 1

Groundwater Monitoring and Sampling Data
Former Texaco Service Station 359766 (Ed's Liquors)
2700 23rd Avenue
Oakland, California

					HYI	DROCARBO	NS							V	ocs	-	-		-	
Location	Date	TOC®	DTW	GWE	ТРН-МО	TPH-DRO	TPH-GRO	В	Т	E	x	MTBE by SW8260	Naphthalene	ТВА	DIPE	ETBE	TAME	1,2-DCA	EDB	ADDITIONAL
	Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
MW-4	11/18/2010 <sup>1</sup> 02/14/2012 <sup>1</sup> 03/13/2015	168.40 168.40 168.47	 6.45 10.70	 161.95 157.77	<250  	2,800 <3,000	26,000 27,000	2,800 1,500	1,500 660 	550 520 	3,100 1,500	<0.5 <5.0	210  	<200  	<50  	<50  	<50  	<50  	<50  	790 <sup>i</sup> 210 <sup>i</sup>  
	06/19/2015 09/29/2015	168.47 168.47	9.63 11.04	158.84 157.43																
	12/22/2015 03/28/2016 06/19/2016	168.47 168.47 168.47	10.31 9.32 8.38	158.16 159.15 160.09	 	  	  	 	  	  	 	  	 	 	 	 	 	 	 	  
	09/08/2016	168.47	8.60	159.87			-		-				-		-				-	
MW-5	02/26/2015 <sup>2</sup> 03/13/2015	162.42 162.42	17.81 16.48	144.61 145.94			<50 	<0.5	<0.5 	<0.5 	<0.5 	<0.5 								
	06/19/2015 09/29/2015	162.42 162.42	10.92 12.29	151.50			<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5								
	12/22/2015	162.42	13.46	150.13 148.96			<50 <50	<0.5	<0.5	<0.5	<0.5 <0.5	<0.5 <0.5								
	03/28/2016	162.42	8.22	154.20			<100	<1	<1	<1	<1	<1								
	06/19/2016	162.42	9.18	153.24			<100	<1	<1	<1	<1	<1								
	09/08/2016	162.42	10.78	151.64			<100	<1	<1	<1	<1	<1			-					-

#### Table 1

# Groundwater Monitoring and Sampling Data Former Texaco Service Station 359766 (Ed's Liquors) 2700 23rd Avenue Oakland, California

					HY	DROCARBO	NS							٧	ocs.					
Location	Date	TOC <sup>a</sup>	DTW	GWE	трн-мо	TPH-DRO	TPH-GRO	В	T	E	X	MTBE by SW8260	Naphthalene	ТВА	ElPE	ETBE	TAME	1,2-DCA	ЕDВ	ADDITIONAL
	Units	ft	ft	ft-amsl	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L

#### Abbreviations and Notes:

- -- = Not analyzed
- <x and ND = Not detected above the method detection limit x.

Total purgeable petroleum hydrocarbons (TPPH) by EPA Method 8260B

Total petroleum hydrocarbons as motor oil (TPHmo), TPH as diesel (TPHd), and TPH as gasoline (TPHg) by modified EPA Method 8015B

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8260B

Methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), 1,2 dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), tertiary butyl alcohol (TBA), naphthalene by EPA Method 8260B Volatile organic copmounds (VOCs) by EPA Method 8260B

a = Top of casing elevation was surveyed by Morrow Surveying on February 24, 2015; coordinates are California State Plan Zone 3, from GPS observation using CSDS virtual survey network, coordinate datum is NAD 83, reference geoid is GEOID03, and vertical datus is NAVD 88 from GPS observations. Prior to 2015, a survey was completed by licensed surveyor Ty Hawkins on December 20, 2010; based on California Coordinate System NAD 83, Zone III (2002.00), and elevations based on NAVD 88.

- b = n-butyl benzene
- c = 4-isopropyl toluene
- d = Sec-butyl benzene
- e = Isopropylbenzene
- f = n-propyl benzene
- g = 2-butanone
- h = 4-methyl-2-pentanone
- i = 1,2,4-trimethylbenzene
- j = 1,3,5-trimethylbenzene
- 1 = Sampled by previous consultant
- 2 = Well development

# Attachment A Monitoring Data Package



October 17, 2016

Chevron Environmental Management Company Mark Horne 6101 Bollinger Canyon Rd. San Ramon, CA 94583

> Third Quarter 2016 Monitoring at Former Chevron Service Station 359766 2700 23<sup>rd</sup> Ave Oakland, CA

Monitoring performed on September 8, 2016

## Blaine Tech Services, Inc. Groundwater Monitoring Event 160908-AC1

This submission covers the routine monitoring of groundwater wells conducted on September 8, 2016 at this location. Five monitoring wells were measured for depth to groundwater (DTW). One monitoring well was sampled. All sampling activities were performed in accordance with local, state and federal quidelines.

Water levels measurements were collected using an electronic slope indicator. All sampled wells were purged using low flow methodology until water temperature, pH, conductivity, dissolved oxygen and oxidation reduction potential were stabilized. Purging was accomplished using Geotech Peri Pumps. Subsequent sample collection and sample handling was performed in accordance with EPA protocols. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

Samples were delivered under chain-of-custody to Lancaster Laboratories, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill-of-lading to Blaine Tech of San Jose, California.

Third Quarter Groundwater Monitoring at Chevron 359766, 2700 23rd Ave., Oakland, CA

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Sincerely,

**Dustin Becker** 

Blaine Tech Services, Inc. Senior Project Manager

attachments: SOP

Well Gauging Sheet

Individual Well Monitoring Data Sheets

Wellhead Inspection Form

Bill of Lading Calibration Log

cc: GHD

Attn: Kiersten Hoey 5900 Hollis St., Suite A Emeryville, CA 94608

# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT CHEVRON SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

## SAMPLING PROCEDURES OVERVIEW

## **SAFETY**

All groundwater monitoring assignments performed for Chevron comply with Chevron's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Chevron site.

## **INSPECTION AND GAUGING**

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. GeoTech). No samples are collected from a well containing product.

## TRADITIONAL PURGING & SAMPLING

#### **Evacuation**

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

## **Parameter Stabilization**

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

## **Sample Collection**

All samples are collected using disposable bailers.

## Sample Containers

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

## **Dewatered Wells**

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not immediately recharge.

## Measuring Recharge

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed approximately 2 hours to recharge prior to sampling or will be sampled at site departure. All wells requiring off-site traffic control in the public right-of-way, the 80% recharge rule may be disregarded in the interests of Health and Safety. The sample may be collected as soon as there is sufficient water. The water level at time of sampling will be noted.

## **Dissolved Oxygen Measurements**

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 550) or HACH field test kits.

The YSI meters are able to collect accurate in-situ readings. The probe allows downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated

as per the instructions in the operating manual. The probe is lowered into the water column and the reading is allowed to stabilize prior to collection.

## Oxidation Reduction Potential Measurements (ORP)

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

#### LOW FLOW SAMPLING USING SAMPLE-PRO BLADDER PUMP

## Calibration

Calibrate YSI Flow Cell as per manufacturer's specifications. Thoroughly rinse probe and cup between parameters. Calibration order as follows:

- 1. pH (use 3-point calibration of 7, 4, 10)
- 2. Specific Conductance
- 3. Temperature

## **Purging & Sampling Collection**

- 1. Insert new bladder into Sample-Pro pump housing.
- 2. Remove dedicated PE tubing from the well or start with new PE tubing cut to the required length.
- 3. Attach the PE tubing to the Sample-Pro Bladder Pump.
- 4. Gently lower the Sample-Pro Bladder Pump, and PE tubing into the well, placing the Sample-Pro Bladder Pump intake at the specified screened interval. Take care to minimize disturbance to the water column.
- Direct effluent line into YSI 556 Flow Cell.
- 6. Set Sample-Pro Bladder Pump speed at 100 500 ml/min.
- 7. Collect water quality parameter measurements for temperature, pH, conductivity, turbidity, DO and ORP every 3-5 minutes.
- 8. Monitor drawdown during purging with electronic water level meter. Record water level with each parameter measurement. MAXIMUM DRAWDOWN IS 0.33 FEET.
- 9. Collect parameter measurements until stability is achieved. Stability is defined as three consecutive measurements where:

Temp  $\pm$  1 ° Celsius pH  $\pm$  0.1 Conductivity  $\pm$  3%

- 10. Sample may be collected once one system has been removed and stability readings have been achieved after the system volume has been removed.
- 11. Disconnect effluent line from YSI 556 Flow Cell.
- 12. Sample through effluent line while maintaining constant flow rate.
- 13. Remove Sample-Pro Bladder Pump, and PE tubing from well.
- 14. Detach and reinstall dedicated PE tubing in well.

## **PURGEWATER CONTAINMENT**

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous Waste Manifest to a Blaine Tech Services, Inc. facility before being transported to a Chevron approved disposal facility

### TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

## **DUPLICATES**

Duplicates, if requested, may be collected at a site.

## SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## **DOCUMENTATION CONVENTIONS**

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label. Field documentation is contemporaneous.

#### **DECONTAMINATION**

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment such as hose reels, pumps and bailers is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is detuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level

indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

## **FERROUS IRON MEASUREMENTS**

All field measurements are collected at time of sampling with a HACH test kit.

Blaine Tech Services, Inc.

## WELL GAUGING DATA

Project # 16 €	908-ACI Date	9/8/16	Client	GHO	
Site 27 <i>9</i> 0	Z3RD AVE	OAKLAND	CA	35-9766	

<u> </u>	<u> </u>	T	T	<del></del>	Least 1	T	· • · · · · · · · · · · · · · · · · · ·			
		Well		D	Thickness	1			Survey	
		Size	Cheer /	Depth to	of	Immiscibles			Point:	
Well ID	Time	(in.)	Sheen / Odor	Immiscible		*	Depth to water			
			+ Cuor	Liquid (ft.)	ridnig (tt.)	(ml)	(ft.)	bottom (ft.)	(OC)	Notes
MW-1	1435	2					5.79	19-65	1	
MW-1 MW-2	1428	2					477	11.60		
MW-3	1445	2			-		9.81	19.70		
Mw-4	1440	7			/			19.67		
Mw.5	1453	7						19.76		
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	<u> </u>	LL	<u>-</u>							

## LOW FLOW WELL MONITORING DATA SHEET

Project #	t: 1609	08-A	ci	Client: GHD										
Sampler	: AC			Start Date	: 9/8	116								
Well I.D	: Mu	^- <del>5</del>		Well Diar	neter:	3 4	6 8							
Total We	ell Depth:	19.70	<del>,</del>	1	Water		0.78 Post:	10.90						
Depth to	Free Prod	uct:		Thickness	of Free P	roduct (fe	eet):	***************************************						
Referenc	ed to:	/PVC)	Grade	Flow Cell	Type:	751	PRO+							
Purge Meth Sampling M Flow Rate:		2" Grundfos  Dedicated T	ubing	Watterra Disp Bailer										
5 <i>0</i> 4 Time	Temp.	pH	Cond. (mS or us)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed	DTW / Observations						
1507	71.6	7.11	1127	6	0.50	28.0	600	10.80						
1510	21.8	7.13	1119	4	0.47	14.7	1200	10.82						
1513	21.4	7.19	1061	3	0.33	0.5	1800	10.84						
1516	22.0	7.77	1041	5	0.28	-13.2	2460	(0.86						
1519	22.1	7.29	1040	4	0.28	-17.2	3000	10.88						
1522	21.9	7.30	1036	4	6.29	-70.1	3600	10.90						
***************************************														
Did well	dewater?	Yes	MO)		Amount a	ctually e	vacuated: 360	gals. or mi						
Sampling	Time: 15	25			Sampling	Date:	7 18116							
	D.: Mu				Laboratory: LANCASTER									
Analyzed	for:	TPH-G	BTEX MTB	E TPH-D		Other:								
3quipmen	t Blank I.I	D.:	@ Time		Duplicate	I.D.:								

CHAIN OF CUSTODY FORM

Chevron Site Number:	359766			Chevron Consulta	ut. Cho	inger Canyon	114.=	<u> </u>	1 1/6	31110		NAL			OH		C.	<u></u>	<u>-</u>
Chevron Site Global ID	: <u>T060000</u>	004218		Į.			H.	Н				IVAL	.132	J NE	.QUI	INEU		Preservation	Codes
Chevron Site Address:			id, CA	Address: _5900 Holl Consultant Contac		yvilte, CA						7						H =HCL T= Thiosulfate	
Chevron PM: Dave Pat	<u>ten</u>			Consultant Phone			HVOC	2				ALKALINITY D		GREASE []				N =HNO <sub>3</sub> B	= NaOH
Chevron PM Phone No	o.: <u>(925) 79</u>	90-3964		Consultant Project			Ĭ	SCREEN				\$ L		৹ঠ				S = H2SO4 O	
⊠ Retail and Terminal ⊠ Construction/Retail	Business	Unit (RTBU)	Job	Sampling Compar	ly: <u>Blaine Tech Se</u>	rvices	LS:							<u>0</u>				Other	
	OOD			Sampled By (Print	): ALEX (	CARLINO	ATA				STLC	310.		413.1					
				Sampler Signature	e:		OXYGENATESI	ORO				EPA 310.1	-	EPA					
Charge Code: NWR		247-0-0ML IMBER-0-W		Lancaster	Other Lab	Temp. Blank Check	ĺá				ПС		ļ					Speci	al
(WBS ELEMENTS:				Laboratories		Time Temp.	1		_	m	os o		ے					Instructi Must meet low	
SITE ASSESSMENT: A1L SITE MONITORING: OML	REMEDIATION :	n Implementat Maintenance 6	ION: R5L MONITORING: M1L	■ Lancaster, PA     Lab Contact: Nicole			MIRE	ä	닖	Mg, Mn, Na	TAL		CONDUCTIVITY	***************************************				detection limits for 8260 cmpou	possible .
This is a LEGAL DOCU				Maljovec			2	587	MTBE	2.	22 M		ğ						
CORREC	CORRECTLY AND COMPLETELY.						ဖြ			χ. Σ	9	I			ETHANOL				
				2425 New Holland Pike, Lancaster, PA 17601 Phone No:			260B/GC/MS	۳	втех	Fe,	E		SFI C		ETH	TPH-D			
	CAMDI E ID						9/8	m		S	90,	F	SPE	TRPH					
	SAMPLE ID						7560	3015	2021	6	010	50.1	10B	18.1	90	015			
Field Point Name	Matrix	Top Depth	Date (yymmdd)	Sample Time	# of Containers	Container Type	EPA 826	EPA 8015B	EPA 8021B	EPA 6010 Ca, Fe, K,	EPA6010/7000 TITLE 22 METALS 🗅	EPA150.1 PH□	SM2510B SPECIFIC	EPA 418.1	EPA 8260	EPA 8015		Notes/Cor	nment
			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Container Type			m	ш	m	1 111	m l	ш ј	တျ	m l	Ш	, III	l	s	
MW-5-W-160809	w		160908	1525	6	VO15	と	ш	. W	ш	ш	ш	8	ш	Ш	, W		s %7 <i>8</i> 7 <i>030</i>	
MW-5-W-160809 MW-5-160809 QA-W-16080				1525 15 <b>8</b> 0	6 2	VO45		111	. D	ш	ш	ш	S	ш	Ш	, Ш		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ	111		111	m	Ш	0	Ш	Ш	, M			015 .
10801			160908		***************************************		ャ	111		11.1	ш	ш	8	Ш	Ü	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ				111		0)	Ш	Ü	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ			<u>u</u>			0	Ш	ŭ.	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ			ш 	111		0	Ш	ш	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ				111		0	Ш	ш	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ						8	Ш	Ü	, W		ভূচত ও্রের	015 .
10801			160908		***************************************		ャ				111	LL .	S	Ш		, W		ভূচত ও্রের	015 .
10801	Comp		160908		Company		ャ						8	Ш	Ü	, w		ভূচত ও্রের	015 .
Relinquished By	Comp B T	5 5/16/1	160908 160908 Pate/Time:	Relinquished To	Company ) BTS a g	Date/Time	ャ		Tur Sta Hou	narou ndard urs 🗅	and Ti	ime: 20	4 Hou			48 h	nours	620 BY 8	015
Q A-n-16080	Comp	5 4/16/1 pany [	160908 160908 Date/Time:	1 5 0 0  Relinquished To	Company	VO-45  Pate/Time	ャ		Tur Sta Hou Sar	narou ndard urs (1)	ind Ti	ime: 2. Otheo	4 Hou		lab	48 h		620 BY 8	015
Relinquished By	Comp B 7	5 4/16/1 pany [ 9/4/16	160908 160908 Date/Time: 715	Relinquished To	Company ) BTS a g	Date/Time	ャ		Tur Sta Hou	narou ndard urs (1)	ind Ti	ime: 20	4 Hou	urs⊡	lab	48 h on ar		620 BY 8	015

## WELLHEAD INSPECTION CHECKLIST

Page l of 1

Client	G4D/	ME	VRON			···········	Date	9/8	7/16	Park wall
Site Address	27	00 23	RD AVE		OUKLA	ND				
Job Number	160	908-A	<u>C1</u>				nician	AC		
Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12" or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain telow)	Repair Order Submitted
MW-1		Y	Y							
MW-2		Y	Y				N/L			
MW-3	X	Υ	Y							
MW-3 MW-4 MW-5		Y	Y				N/L			
MW-5	X	Y	Y							
			·							
					•					
NOTES:	······································	······································	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	·····			<u>.</u>			
****				······································	1		·····			****

SOURCE RECORD **BILL OF LADING**FOR PURGEWATER RECOVERED FROM
GROUNDWATER WELLS AT CHEVRON FACILITIES IN
THE STATE OF CALIFORNIA. THE PURGE- WATER
WHICH HAS BEEN RECOVERED FROM GROUNDWATER WELLS IS COLLECTED BY THE CONTRACTOR
AND HAULED TO THEIR FACILITY IN SAN JOSE,
CALIFORNIA FOR TEMPORARILY HOLDING PENDING
TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

CHEVRON# Chevron Engineer

2700 7300 AVE OAKLAND CA

street number street name city state

WELL I.D. GALS.	WELL I.D. GALS.
MW-5 11.00	
/	
added equip. rinse water / ( )	any other adjustments /
TOTAL GALS. Z O	loaded onto 35 BTS vehicle #
BTS event # 160908-Ac1 tir	me date 1536 7 18 1 16
Transporter signature	
*******	
REC'D AT 375	time date 1710
Unloaded/received by signature	
-	· / / / / / / / / / / / / / / / / / / /

## TEST EQUIPMENT CALIBRATION LOG

PROJECT NAM	ME GYD -	(35-9766	)	PROJECT NUMBER 160908 - ACI							
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:		INITIALS				
YSI PRO+	14 A \$102848	9/8/16 0600	DO 100% COWD 3900 PH 7,10,4	100,1%. 3900 4.00,10.00,4.60	Y		AC AC				
<u> </u>	~	<b>√</b>	en 1, 0,9 enz p	231.7	Y	24.9%	AC AC				

# Attachment B Laboratory Analytical Report



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

## ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601

Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Report Date: September 21, 2016

**Project: 359766** 

Submittal Date: 09/10/2016 Group Number: 1706629 PO Number: 0015195463 Release Number: HORNE State of Sample Origin: CA

> Lancaster Labs (LL) # 8579292 8579293

Client Sample Description MW-5-W-160908 NA Water QA-T-160908 NA Water

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GHD Attn: Kiersten Hoey
Electronic Copy To Chevron Attn: Anna Avina
Electronic Copy To Blaine Tech Services, Inc. Attn: Dustin Becker
Electronic Copy To Chevron Attn: Report Contact

Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



# Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-W-160908 NA Water

Facility# 359766 BTST

2700 23rd Ave-Oakland T10000004218

LL Sample # WW 8579292 LL Group # 1706629

# 10991

Project Name: 359766

Collected: 09/08/2016 15:25 by AC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 09/10/2016 09:45 Reported: 09/21/2016 16:39

230M5

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene		108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	100	1

## Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F162602AA	09/16/2016 08:39	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F162602AA	09/16/2016 08:39	Anita M Dale	1
01728	TPH-GRO N. CA water	SW-846 8015B	1	16259A94A	09/20/2016 00:10	Jeremy C Giffin	1
	C6-C12						
01146	GC VOA Water Prep	SW-846 5030B	1	16259A94A	09/20/2016 00:10	Jeremy C Giffin	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA-T-160908 NA Water

Facility# 359766 BTST

2700 23rd Ave-Oakland T10000004218

LL Sample # WW 8579293

LL Group # 1706629 Account # 10991

Project Name: 359766

Collected: 09/08/2016 15:00 Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 09/10/2016 09:45 Reported: 09/21/2016 16:39

230QA

CAT No.	Analysis Name	c.	AS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-	846 82601	3	ug/l	ug/l	ug/l	
10945	Benzene	7	1-43-2	N.D.	0.5	1	1
10945	Ethylbenzene	1	00-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Et	her 1	634-04-4	N.D.	0.5	1	1
10945	Toluene	1	08-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1	330-20-7	N.D.	0.5	1	1
GC Vol	Latiles SW-	846 80151	3	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C	12 n	.a.	N.D.	50	100	1

## Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F162602AA	09/16/2016 08:17	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F162602AA	09/16/2016 08:17	Anita M Dale	1
01728	TPH-GRO N. CA water	SW-846 8015B	1	16259A94A	09/20/2016 00:36	Jeremy C Giffin	1
	C6-C12						
01146	GC VOA Water Prep	SW-846 5030B	1	16259A94A	09/20/2016 00:36	Jeremy C Giffin	1

<sup>\*=</sup>This limit was used in the evaluation of the final result

# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

## Quality Control Summary

Client Name: Chevron Group Number: 1706629

Reported: 09/21/2016 16:39

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

#### Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: F162602AA	Sample numbe	r(s): 8579	292-8579293
Benzene	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: 16259A94A	Sample numbe	r(s): 8579	292-8579293
TPH-GRO N. CA water C6-C12	N.D.	50	100

## LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F162602AA	Sample numbe		-	3.					
Benzene	20	19.42	.52 0575255		97		78-120		
Ethylbenzene	20	18.27			91		78-120		
Methyl Tertiary Butyl Ether	20	18.37			92		75-120		
Toluene	20	18.11			91		80-120		
Xylene (Total)	60	55.03			92		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16259A94A	Sample numbe	r(s): 85792	292-8579293						
TPH-GRO N. CA water C6-C12	1100	1055.97	1100	1095.92	96	100	77-120	4	30

## MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F162602AA	Sample numb	er(s): 8579	292-8579	293 UNSPK:	8579292					
Benzene	N.D.	20	20.29	20	20.54	101	103	78-120	1	30
Ethylbenzene	N.D.	20	19.2	20	19.09	96	95	78-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	18.44	20	18.28	92	91	75-120	1	30

<sup>\*-</sup> Outside of specification

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

## Quality Control Summary

Client Name: Chevron Group Number: 1706629

Reported: 09/21/2016 16:39

## MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Toluene	N.D.	20	19.32	20	19.47	97	97	80-120	1	30
Xylene (Total)	N.D.	60	57.76	60	58.22	96	97	80-120	1	30

## Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE Batch number: F162602AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8579292	99	102	97	97
8579293	99	104	96	96
Blank	100	100	97	97
LCS	100	103	96	100
MS	98	102	97	98
MSD	99	101	98	100
Limits	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 16259A94A

	Trifluorotoluene-F	
8579292	81	_
8579293	81	
Blank	81	
LCS	93	
LCSD	94	
		Τ

Limits: 63-135

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

1706629 | 8579292-93 CHAIN OF CUSTODY FORM Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd. ■ San Ramon, CA 94583 coc ANALYSES REQUIRED Chevron Site Number: 359766 Chevron Consultant: GHD H H Preservation Codes Chevron Site Global ID: T060000004218 Address: 5900 Hollis St., Suite A, Emeryville, CA H=HCL T= Chevron Site Address: 2700 23rd Ave., Oakland, CA Consultant Contact: Kiersten Hoev Thiosulfate OIL & GREASE НХОСП EPA 310.1 ALKALINITY N =HNO3 B = NaOH Chevron PM: Dave Patten Consultant Phone No. 510-420-3347 SCREEN  $S = H_2SO_4 O =$ Consultant Project No. 160908 - ACI Chevron PM Phone No.: (925) 790-3964 Other 오 OXYGENATEST Sampling Company: Blaine Tech Services ☑ Retail and Terminal Business Unit (RTBU) Job 413.1 STLC ☑ Construction/Retail Job Sampled By (Print): ALEX CARLING EPA ORO 11.c Sampler Signature: \_\_\_\_ Temp. Blank Check Special Other Lab Charge Code: NWRTB-0098247-0-OML Lancaster Time Temp. Instructions NWRTB 00SITE NUMBER-0-WBS Laboratories DRO Must meet lowest SM2510B SPECIFIC CONDUCTIVITY MTBE Mn, Na EPA6010/7000 TITLE 22 METALS (WBS ELEMENTS: detection limits possible SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L for 8260 cmpounds. SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L Lab Contact: Nicole Mg, Maljovec Ø ETHANOL THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT 8260B/GC/MS -G-國公 BTEX 廳 BTEX [ ヹ CORRECTLY AND COMPLETELY. TPH-D 2425 New Holland Pike, Ę. **EPA 418.1 TRPH** EPA150.1 PH □ Lancaster, PA 17601 EPA 6010 Ca, Phone No: 8015B EPA 8021B (717)656-2300 **EPA 8015** 8260 SAMPLE ID EPA 8 # of Containers Notes/Comment Date Sample Time **Container Type** Field Point Name Matrix Top Depth (yymmdd) MU-5-W-160909 1525 160908 VOAS 680 BY8015 MW. 5 160801 1500 2 UOA5 بإ 10 A-W-160809 160908 626 BY 8015 Relinguished\_To Date/Time Turnaround Time: Relinguished By /Date/Time: Company Company 72 Standard. 24 Hours□ 48 hours□ ATTI (CUST.) BTS 1715 Hours□ Other□ Sample Integrity: (Check by lab on arrival) Date/Time Relinguished To Date/Time Relinguished By Company Company On Ice: Intact: Temp: Date/Time COC#

\* SHIPPED VIA UPC

Relinguished To

Date/Time

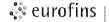
Company-

Relinquished By

My Che De 9/10/14 945

COC 35-9766, 09/06/16

Company



## Sample Administration Receipt Documentation Log

Doc Log ID:

161722

Group Number(s): 1706629

Client: Chevron Environmental

**Delivery and Receipt Information** 

**Delivery Method:** 

Fed Ex

Arrival Timestamp:

09/10/2016 9:45

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

CA

**Arrival Condition Summary** 

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

**Custody Seal Present:** 

Yes

Sample Date/Times match COC:

Yes

**Custody Seal Intact:** 

Yes

VOA Vial Headspace ≥ 6mm:

Air Quality Samples Present:

No

No

Samples Chilled:

Yes

Total Trip Blank Qty:

2

Paperwork Enclosed:

Yes

Trip Blank Type:

HCI

Samples Intact: Missing Samples: Yes No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Ayesha Ahmad (10877) at 12:37 on 09/10/2016

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler # Thermometer ID 1

Corrected Temp

Therm. Type DT

Ice Type

Ice Present?

Ice Container Bagged

**Elevated Temp?** 

DT121

1.1

Wet

Υ

Ν



## **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mĹ	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

**Dry weight basis**Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

## Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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